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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/653,997	09/04/2003	Katsuhiko Miki	242098US-557-557-3-CONT	4579

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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
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SEVERSON, JEREMY R

ART UNIT	PAPER NUMBER
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3653

NOTIFICATION DATE	DELIVERY MODE
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05/14/2007

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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**Office Action Summary**

Application No.

10/653,997

Applicant(s)

MIKI, KATSUHIKO

Examiner

Jeremy R. Severson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 55-79 is/are pending in the application.
- 4a) Of the above claim(s) 55-65,68,70,72,74,76 and 78 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 66,67,69,71,73,75 and 77 is/are rejected.
- 7) ☒ Claim(s) 79 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 09/865582.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8 February 2007 has been entered.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 66, 67, 69, 71, 73, 75 and 77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yukimachi (US 5,501,444) in view of Williams (US 5,575,467).

Re claims 66, 67, 71, 75 and 77, Yukimachi discloses an image forming apparatus comprising: an image forming device (109) configured to form an image on a sheet; a guiding member (see sheet path in fig. 26); a sheet feeding device configured to convey the sheet to said image forming device, said sheet feeding device includes an

axis, a driving gear configured to rotate said axis and support said axis at one side thereof, a gear engaged with said driving gear, a feed roller (1) and a separation member (2) configured to be pressed against said feed roller at a pressure applied between said feed roller and said separation member; wherein said sheet separation member comprises a reverse roller upwardly and elastically supported by said axis and disposed at a free end side of said axis via a torque limiter (38), so as to be rotated in a sheet feeding direction and a direction opposite the sheet feeding direction.

Yukimachi lacks the explicit disclosure of a pressing device configured to change the pressure while the sheet is conveyed between said feed roller and said separation member such that a plurality of sheets conveyed between said feed roller and said separation member are separated and individually conveyed to said image forming device. Williams discloses such a configuration (see e.g. col. 2, lines 40-56), in order to assure feeding of individual sheets. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add a pressing device configured to change the pressure while the sheet is conveyed between said feed roller and said separation member such that a plurality of sheets conveyed between said feed roller and said separation member are separated and individually conveyed to said image forming device, to the apparatus of Yukimachi, as taught by Williams, in order to assure feeding of individual sheets.

Re claim 69, the apparatus of Yukimachi as modified by Williams comprises everything except Yukimachi does not explicitly disclose that said pressing device uses a magnetic force, and said pressing device provides the change in the pressure more than one time as said reverse roller makes one rotation.

Yukimachi discloses a motor (15) as driving the apparatus. Though Williams is silent as to the driving force that drives the pressing device, one of ordinary skill in the art would look to common rotary electric motor to drive the device, as such motors are inexpensive. The examiner takes official notice that such motors use magnetic forces in their operation. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the pressing device use a magnetic force, in order to use inexpensive components.

Williams discloses a system wherein the pressing force is adjusted constantly in order to restrain the feed of sheets. See col. 2, lines 56 et seq. This could foreseeably result in the pressing device making the change in the pressure more than one time as said reverse roller makes one rotation.

Re claim 73, the apparatus of Yukimachi as modified by Williams comprises everything except that all three of said feed roller, said reverse roller, and said pressing device are integrally constructed as a unit. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the parts

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integrally since it has been held that forming in one piece an article that formerly has been formed in several pieces and put together involves only routine skill in the art.

*Howard v. Detroit Stove Works* 150 U.S. 164 (1893).

### ***Allowable Subject Matter***

Claim 79 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

Applicant's arguments, filed 8 February 2007, with respect to the Suga reference (US 6,378,858) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the newly cited art.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy R. Severson whose telephone number is (571) 272-2209. The examiner can normally be reached on Monday through Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey, can be reached on 571-272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeremy R Severson  
Examiner  
Art Unit 3653

jrs



PATRICK MACKEY  
SUPERVISORY PATENT EXAMINER  
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